Tennessee College of Applied Technology - Livingston

2019 Governor's Investment in Technical Education (GIVE)

Having a Viable, Available, Competent Workforce in Jackson County (HVAC)

IN PARTNERSHIP WITH:

1. Upper Cumberland Local Workforce Development

Jackson County Chamber of Commerce

Jackson County Industrial Development Board

Highlands Economic Partnership - Workforce and Education - Pathways

- 2. Tennessee College of Applied Technology Livingston
 - Jackson County School System
 Jackson County High School
 - 4. Cookeville Heating and Cooling

Mayberry Heating and Cooling

Carwile Mechanical Contractors

Cynthia Mann, Project Director 740 Hi Tech Drive Livingston, TN 38570 (931) 823-5525

Funding Requested: \$1,000,000.00

President of TCAT Livingston

Project Director

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Project Summary

The Tennessee College of Applied Technology Livingston and Jackson County GIVE program will create a new pathway in HVAC at Jackson County High School. The grant will acquire the necessary equipment to develop a program of study that will include dual enrollment HVAC classes conducted by the TCAT Livingston. The pathway will allow high school students from both Jackson County and Clay County to receive training that will culminate in a post-secondary certificate or diploma from the HVAC Technology program at TCAT Livingston. High School students will have the opportunity to take HVAC classes, between 90-1080 clock hours, while in high school. For each class one Early Post-Secondary Opportunity credit will be earned for each dual enrollment class taken. In addition, the North American Technician Excellence certification will be part of the new pathway giving students an opportunity to earn EPA and state required industry certification.

The grant will also include a strong work-based learning component that will allow seniors to participate in an internship in HVAC technology as their capstone CTE class. By creating a pipeline of graduates in the HVAC program, the grant will provide Jackson County with the opportunity to increase the number of post-secondary credentials being earned and contributing to the county's ability to meet the Drive to 55 goal. Working with county administrators and industry partners, the program will offer early career choices to students and assist them in reaching their full potential.

Section 1: Demonstration of Need

The Upper Cumberland region of Tennessee has been attractive for manufacturers due to location, labor supply and business climate. After several years of strong job growth, the Tennessee Department of Economic & Community Development shows a continued increase in the demand for skilled workers in the construction, mechanical, electrical, and plumbing systems (MEP) sector. Commercial and residential construction is expected to drive the growth.

The Department of Labor and Workforce Development evaluated the supply for heating, air conditioning, and refrigeration mechanics and installers and determined that the occupation is expected to grow much faster than average for all occupations. Projected growth was 15 percent from 2016 to 2026. The Occupational Outlook Handbook developed by the Bureau of Labor Statistics lists MEP System occupations to employ 7.16 million people by 2022 with 1.68 million job openings between the years 2014 and 2022. A total of 11,240 jobs are expected to be added to in Tennessee during this time period, totaling 115,680 individual jobs by 2022.

Opportunities for HVAC technicians are available in a broad range of related occupations. An HVAC technician can work in homes, schools, hospitals, office buildings or factories. Job outlook is positive for an HVAC technician but many employers in the Upper Cumberland Region report difficulty finding technicians trained properly in new technology. The lack of skilled workers has disproportionately affected the growth of the construction industry.

The businesses that are partnering for Jackson County's GIVE grant are requesting a local workforce equipped with the technical skills needed in their industry sector and have confirmed their desire to support this initiative, as shown by offered work based learning

experiences. HVAC systems have improved drastically and have become increasingly complex.

Most employers are looking for applicants with post-secondary education.

The GIVE grant would provide the funds necessary to develop the HVAC program within the Jackson County School System. Students will begin their training in high school to earn college level credit hours. If they continue the program post-secondary, students will have the opportunity to participate in a progressive program where they can earn HVAC Excellence certifications and graduate with a Diploma. TCAT instructors concentrate on needs specific to our region, and prepare students with the skills and knowledge necessary to succeed in an HVAC occupation.

Tennessee Economic & Community Development research shows Jackson County as a distressed county with the median household income to be \$33,933 annually. According to the Tennessee Department of Labor and Workforce Development Division's estimates, Heating, Ventilation and Air Conditioning technicians can earn a median income of \$41,463 annually. According to the MIT living wage calculator, these earnings are considered livable wages in Jackson County, TN. The HVAC program in Jackson County has the potential to improve the county's employment opportunities and potential earnings through education and training.

TCAT – Livingston, Jackson County schools, industry and community partners propose to address the local workforce needs. Improving the pathway between secondary and post-secondary institutions, post-secondary education will be more attainable. The increase in certificates and diplomas will have a profound impact on meeting goals for the Governor's

Drive to 55 initiatives by attracting a new pool of students that would begin working toward a post-secondary credential through dual-enrollment as described in the program plan.

Section 2: Program Plan

Grant activities will begin in January of 2020 with renovation of the lab space. Appendix D gives a detailed timeline of the critical activities and actions required for the success of the grant. Included in the timeline is an overview of the activity along with the measurable outcomes for each of the activities.

Beginning in January of 2020, the TCAT Livingston will also begin the process of purchasing BAS equipment, a residential heat pump learning system, refrigerant recovery and charging, hand tools, and various supplies needed for the program. The goal will be for all equipment and supplies to be purchased and in place by the end of May. The outcome for this activity will be that the HVAC program will have all the necessary equipment, supplies and tools needed to complete the training in the HVAC technology program.

The TCAT Livingston will advertise in January for a Workforce/Work-Based Learning

Coach to serve both Jackson County and Clay County. A job description can be found in

Appendix E. The coach will be responsible for working with employers and students in the area
to provide meaningful work-based activities. Activities will begin in the elementary school
where the coach will spend time in the classrooms providing career exploration activities. These
activities will include a "Career Tech Reading Day". During the Career Tech Reading Day,
employers will read and visit with students to explain their careers and the need for a skilled
workforce. Employers will also provide industry tours for middle school students and work-

based internship opportunities for high school students. The coach will coordinate and report student activity to the project director and advisory committee. The coach will also be responsible for recruiting high school students to enroll in the HVAC program at Jackson County. A critical role of the coach will be to establish relationships with employers, parents, teachers, and students. Communication and marketing of the program and the need to fulfill the skill gaps in the workforce will be a priority of the Workforce/Work-based coach. The measurable outcome for this activity will be the number of students enrolling in the HVAC Technology program and other technical programs of study. Outcomes will also be measured by the number of EPSOs earned by students.

The position of the Workforce/Work-Based Learning coach will be to focus on the recruitment of underrepresented student groups including low income students and women. The coach will work to identify the student groups who are traditionally underrepresented and will develop a recruitment plan to encourage students to pursue careers in Career and Technical Education. The Appalachian Regional Commission calculated Jackson County has a 3-year average poverty rate of 22.1% with 5.9% unemployment and needs skilled individuals to join the workforce. The coach will plan activities that educate both parents, community members and students of the need for a skilled workforce and the shortage of workers with technical skills. The measurable outcome for this activity will be the increase in the number of economically disadvantaged students who enroll in Career and Technical programs of study.

A major continuum of the work-based learning activities is the transition from middle school to high school. A summer Career and Technical Bridge program will be established as

part of this grant. The program will consist of a one-week program to introduce rising freshman the opportunity to familiarize themselves with the Career and Technical opportunities available to them at the high school. The program will include industry tours, a tour of TCAT, employer speakers and hands-on activities in the career and technical labs—HVAC Technology at Jackson County. The Bridge program will be coordinated by the Workforce/Work-based Learning coach and the outcomes of the program will be determined by the number of students attending the camp who enroll in a career and technical program of study in high school.

Work-based learning will also include a capstone internship class that will give the students one credit in their program of study. Students who have completed three HVAC Technology classes will have an opportunity to apply for a one semester internship with our employer partners. Students will interview with the employer and will be given the opportunity to apply their skills in the workforce. In addition, the grant will establish summer internships for students wishing to work during the summer in a technical field. Students will complete an application indicating the type of technical field they would like to pursue, and the Workforce/Work-based Learning Coach will work to secure summer internship opportunities for students. Employers will be given an evaluation to complete on all students enrolled in an internship. Results of the evaluation will be shared with students and instructors as well as the advisory committee for the grant. Students will also be asked to write a reflection paper about their experience during the internship course. The measurable outcome for this activity will be the number of students completing three or four courses and a capstone internship class. Outcomes will also be measured by the number of students applying and completing a summer internship.

Another major component of the Jackson County's GIVE grant will be teacher engagement with business and industry. A key to the success of this grant will be the engagement of teachers with employers who are needing skilled workers. The grant will fund opportunities for teachers to complete industry tours in both the fall and spring semesters. In addition, the grant will fund a stipend for teachers who wish to participate in a week-long teacher externship with a local employer. A team of teachers will be selected to participate in the program and the Workforce/Work-based Coach will coordinate and lead the team through the program. Lesson plans will be developed based on their experience to be utilized across academic disciplines. First-hand experience of teachers in the industry will better equip teachers, counselors, and administrators to advise students on career choices and opportunities. Professional development opportunities will be tracked on a semester basis and the outcomes of the teacher externships will be measured by both a pre and post survey that will capture their perceptions prior to and after the externship. Teachers will also be asked to complete a semester report outlining how the lesson plans were utilized in their classes.

The equipment has been recommended and reviewed by the program's advisory committee which is composed of employers in the region. The grant will also provide for the foundation courses for the post-secondary program at TCAT Livingston. The additional HVAC equipment will increase the enrollment capacity of the full-time program and will result in more post-secondary credentials being awarded each year (Drive to 55 Goal). Students in the Jackson County dual enrollment program will complete the same curriculum as the post-secondary students. Upon completion of high school, students will be able to enter the post-secondary program and complete the program in under one year. Students enrolled in the full-time

program will also have the opportunity to obtain multiple industry certifications. The post-secondary program will also provide opportunities for students to participate in co-op programs during their last trimester of training. These co-ops will be coordinated with employers by the full-time instructor and will enhance and expand the students training opportunities. The overall objective will be to increase the number of post-secondary credentials being awarded. The high level of interest is an indicator that the equipment and curriculum being utilized will meet the needs of employers in the region. Each year the TCAT is held accountable for the quality and outcomes of the program through the Council on Occupational Education annual report. This data will be shared with the advisory committee for the GIVE grant.

Another component of this grant will be to expand and enhance the Work Ethic Diploma program at the high school. In response to the needs for a stronger work ethic in the workforce, students will be encouraged to participate in the Work Ethic Diploma program. The Workforce/Work-Based Coach will develop marketing materials, promote the program at up and rising freshman night, recruit additional employers to participate in the program and help students develop portfolios that showcase their work ethics. At the end of the school year, a recognition dinner will be held to honor students and employers who participate in the program. The dinner will give students and parents an opportunity to meet with employers and network with employers in their chosen field.

The TCAT Livingston is governed by the TN Board of Regents (TBR) and all TBR policies and procedures will be followed in implementing the GIVE Grant. Decisions regarding grant activities will be made in accordance to the policies and procedures of TBR with final decisions made by the President. An advisory committee will be appointed to maintain oversight of the

grant activities throughout the project period. The committee will be comprised of a representative from each of the partners of the grant and will meet twice during the fiscal year (See Appendix C for membership). Through the collaboration of this committee, the TCAT Livingston and Jackson County will be held accountable for the activities and outcomes of the grant. The project director for the grant will be employed by the TCAT Livingston. The primary duties will be to oversee the implementation, reporting, compliance, and outcomes of the grant. The project director will coordinate with the Workforce/Work-Based Learning Coach to ensure that all activities are being conducted and partnerships with employers are being established.

Section 3: Strength of Partnership

The Governor's Investment in Vocational Education grant alliance includes local education members, community leaders, and area industry partners. Tennessee College of Applied Technology Livingston, Jackson County School System and Jackson County High School will represent the county's education institutions. Community leaders from the Upper Cumberland Local Workforce Development Board Area 7, the Tennessee Department of ECD Upper Cumberland Region, the Jackson County Chamber of Commerce, the Jackson County Industrial Development Board, and the Highlands Economic Partnership – Workforce and Education – Pathways program will act on behalf of the community and will play a key role implementing the GIVE grant. Carwile Mechanical Contractors, Cookeville Heating and Cooling, and Mayberry Heating and Cooling will act for our local industries.

The Memorandum of Understanding (appendix G) agreed upon will provide an understanding of the roles and responsibilities of each partner and how their efforts will develop long term partnerships. The partnership will support efforts to develop an employer-driven career path that can be obtained through higher education programs. This partnership provides high school students the opportunity to earn both TCAT (clock hours) and high school graduation credits simultaneously upon successful completion of qualified course(s). Jackson County's program is Having a Viable, Available, Competent Workforce in Jackson County (HVAC).

Jackson County School System and Jackson County High School will encourage students to enroll in the HVAC program and will support them in this endeavor. The high school will provide the program an appropriate facility and instructional materials. Feedback from students and their progress will be continually communicated to each grant partner during advisory board meetings.

The TCAT Livingston will serve as the lead entity and fiscal partner for the GIVE grant. In this capacity, TCAT Livingston will collaborate with each partner representative to coordinate grant objectives, including scheduling meetings and events. The TCAT Livingston, Jackson County School System, and Jackson County High School have successfully implemented and maintained technical programs to address the needs of the local workforce. As the need of the local workforce shifts, the education partners are quick to adjust curriculum as suggested by the Highlands Workforce Development and Education partnership.

The Highlands Workforce Development and Education – Pathways Initiative has been especially successful by their ability to recognize skills gaps and suggest new and innovative ideas to address local workforce needs. The Highlands organization communicates with the Jackson County Chamber of Commerce to assist meeting their focus on community goals. One of the Chamber's primary objectives is to collaborate with the Tennessee Department of Economic and Community Development to make Jackson County attractive to new businesses and industries ready to settle or relocate.

The Upper Cumberland Workforce Development Board prepares students for the steps necessary to obtain a working position in the HVAC field. They offer their services by means of training workshops and individual assistance. Some of the skills students will learn are to develop a career plan, write or improve their resume, and interviewing skills.

Employers in the Upper Cumberland recognize the importance of a trained workforce and will assist in the implementation of Jackson County's HVAC program. A list of these employers can be found in appendix C. These partnerships are key to the success of the program and requires active participation. Our industry partners have pledged their support by providing direct reinforcement of academic, technical and employability skills through Work Based Learning programs. Industry partners will document student learning and ensure assessment is aligned with program expectations.

Industry partners will provide meaningful and sustainable work experiences to students through internships, co-ops, and registered apprenticeships when required. Summer internships for students, faculty, and guidance counselors are also important to further develop

classroom experiences and ensure alignment with workplace needs. Carwile Mechanical Contractors, Cookeville Heating and Cooling, and Mayberry Heating and Cooling will each have a company representative on the advisory board to communicate the development and progress of their interns and/ or newly hired employees.

Through mutual collaboration and support from all community levels, Jackson County High School student's efforts will align with Tennessee's Drive to 55 goals by increasing post-secondary education in the region.

Section 4: Budget Plan

Tennessee College of Applied Technology Livingston and Jackson County's objective for the GIVE grant funds is to provide a smooth transition for students through a dual- enrollment program. A funded HVAC program in Jackson County High School will allow students hands-on training in a career cluster that meets area industry requirements. Establishing these programs at the secondary education level provides students with the opportunity to begin their career training and will encourage a greater number of students to attend post-secondary, supporting Tennessee's Drive to 55 goals. Before the program can be implemented, program partners will have to acquire funding. A detailed item list with costs is provided in Appendix B.

Jackson County High School will be restructuring and moving classroom locations to meet the physical space requirements of the program. In addition to classroom relocations, we will be purchasing, textbooks, whiteboards and additional instructional materials. An experienced instructor's salary and benefits, whose career focuses on HVAC technology will also be funded by the grant. The future HVAC shop area will require BAS equipment, residential

heat pump learning system, residential mini split heat pump learning system, refrigerant recovery and various supplies needed for the program.

Jackson County Schools will hire a Workforce/ Work-based Learning Coach. The individual in this position will facilitate student opportunities to participate in apprenticeships, internships, co-op programs and assist students in their transition from high school to post-secondary education. The Workforce/ Work-based Learning Coach will schedule site visits with our industry partners and accompany the instructor and students. Transportation costs for these visits will also be funded by the grant.

The program instructor, guidance counselor, and Workforce/ Work-based Learning Coach will be required to visit industry partners during each summer. These externships will provide support staff with the hands-on experience so they can better understand the equipment and skills necessary for program success. This information will assist educators in their efforts in attracting and retaining students that will be more successful in completing the program.

A primary focus of TCAT Livingston and all of the Upper Cumberland community, industry, and educational partners is to insert work ethics training at every opportunity. Students have the opportunity to demonstrate employability qualities, as well as work-based skills, and will be recognized for these accomplishments. The grant will allow Jackson County High School to award students with a distinction on their diploma and celebrate their accomplishments with a banquet upon graduation. If student's meet the requirements necessary to test for certification, then funding will be provided.

As the lead institution, TCAT's program director for the GIVE grant will coordinate with all partners to ensure grant stipulations and record requirements are being met. The indirect funds have been reserved to cover the costs of implementation and administration of the grant.

Information gathered for the duration of the program, will be combined and used for future planning.

Section 5: Sustainability

The Tennessee College of Applied Technology – Livingston has been in existence since 1966 and continues to maintain strong enrollments, completion, and placements of students. The mission of the College is to be the premier supplier of workforce development throughout the Upper Cumberland area. TCAT – Livingston's 2017-2018 graduation rate is 83.7% with a 96.1% placement rate.

The demand for TCAT's advanced HVAC program continues to grow as evidenced by the area interest in implementing the program. The addition of state-of-the-art equipment and an upgraded facility will strengthen the student's educational experience while better preparing them for job placement. The location selected by Jackson County Schools will accommodate multiple grade level students. The TCAT Livingston HVAC program will serve high school and post-secondary students working to pursue a career as an HVAC technician.

Dual enrollment has been a major part of the training at the TCAT Livingston since the early 1980's with the passage of the Comprehensive Education Act. TCAT Livingston trains on average around 1000 high school students from 6 counties each year. The addition of a postsecondary program of study in Jackson County will provide more students with an

opportunity to pursue new career paths. Given the rich history of the TCAT Livingston and the successful implementation of Career and Technical Programs at the secondary level, the sustainability of this program of study is expected to be long-term.

The TCAT Livingston is committed to maintaining the program as long as the needs exist.

The college's internal maintenance department will service and repair program equipment.

Preventative maintenance will also be completed to extend the life of the HVAC program equipment and tools.

Each of Jackson County's employer partners have well established businesses in the Upper Cumberland and continue to grow and thrive in an ever changing economy. Each partner has shown through their involvement in the region their commitment to building a strong workforce that supports the needs of existing business and future businesses that locate in the Upper Cumberland region. Each employer has committed to ensuring the success of the grant as indicated in their Work based learning participation. Employer partners will continue to serve on the Advisory Board for the HVAC program after the grant period and will continue to contribute to the overall success of the training provided.

Communication with each of the industry and educational partners will continue after the grant period through the Advisory Board. TCAT staff will maintain constant contact with the community leaders and employers in the region. TCAT Livingston, Jackson County School System, and our industry and community partners will have the opportunity throughout the year to share data necessary to evaluate the success of the program. Program requirements will be continuously adjusted accordingly.

The GIVE Advisory Board will identify workforce needs related to the program and develop the training to meet these needs through continuous improvement initiatives. The implementation of programs such as the TN Lottery, TN Promise, and TN Reconnect will also support and encourage students to enroll post-secondary in high-demand occupations and careers and to pursue post-secondary education at the Tennessee Colleges of Applied Technology. TCAT Livingston and Jackson County School System will pursue additional financial opportunities to assist in funding the program. TCAT Livingston is committed to the efforts of the governor and his administration and supports their "accelerated transformation of rural Tennessee".

Section 6: Economic Status Acknowledgement

The Appalachian Regional Commission (ARC) has determined the economic status for FY 2018. Jackson County has been categorized as DISTRESSED. (See appendix F)

APPENDIX B

GRANT BUDGET

GIVE Program Competitive Grant

The grant budget line-item amounts below shall be applicable only to expenses incurred during the following

Applicable Period:	Applicable Period: BEGIN: January 2020 END: July 2022					
POLICY 03 Object Line-item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT		
1, 2	Salaries, Benefits & Taxes	\$361,000.00		\$361,000.00		
4, 15	Professional Fee, Grant & Award			\$ -		
5, 6, 7, 8, 9, 10	Supplies, Telephone, Postage, & Shipping, Occupancy, Equipment Rental & Maintenance, Printing & Publications	\$ 6,000.00		\$ 6,000.00		
3, 0, 7, 8, 3, 10	Travel, Conferences &	<i>y 0,000.00</i>		9 0,000.00		
11, 12	Meetings	\$ 58,000.00		\$ 58,000.00		
13	Interest			\$ -		
14	Insurance			\$ -		
16	Specific Assistance To Individuals			\$ -		
17	Depreciation		.,,	\$ -		
18	Other Non-Personnel			\$ -		
20	Capital Purchase	\$505,000.00		\$505,000.00		
22	Indirect Cost	\$ 70,000.00		\$ 70,000.00		
24	In-Kind Expense			\$ -		
25	GRAND TOTAL	\$1,000,000.00	\$ -	\$1,000,000.00		

GIVE GRANT EQUIPMENT LIST

Jackson County -- HVAC Technology

EQUIPMEN

BAS Equipment (attached Specs) Refrigerant Recovery and Charging for R-	\$ 275,000.00
134a	\$ 29,000.00
Refrigerant Recovery and Charging for R-410a	\$ 29,000.00
Residential Heat Pump Troubleshooting Learning System	\$ 87,000.00
Residential Mini Split Heat Pump Learning	
System	\$ 80,000.00
Hand Tools	\$ 5,000.00
Subtotal	\$ 505,000.00

INSTRUCTIONAL EQUIPMENT

Textbooks and Software	\$ 6,000.00
Subtotal	\$ 6,000.00

TRANSPORTATION

Subtotal	\$ 50,000.00
Bus Driver for Transporting Students	\$ 20,000.00
Fuel and Mileage for Bus Transportation	\$ 30,000.00

PERSONNEL

Subtotal	\$ 361,000.00
Teacher Stipends for Summer Internships	\$ 18,000.00
Teacher Externships (Subs)	\$ 3,000.00
Instructor Benefits	\$ 75,000.00
Instructor Salary	\$ 145,000.00
Salary	\$ 120,000.00
Workforce/Work Based Coordinator and	

MARKETING AND MEETINGS

Subtotal	\$ 8,000.00
Work Ethics Dist. Banquet	\$ 3,000.00
Marketing and Promotion	\$ 5,000.00

Indirect Cost \$ 70,000.00

Total \$1,000,000.00

GIVE Program Notice of Intent to Submit

Lead Entity: Tennessee College of Applied Technology - Livingston

Program Director/Co-Director: Myra West

Program Director/Co-Director Email Address(es):

Myra.West@tcatlivingston.edu

Name of Higher Education Institution (Fiscal Agent):

Tennessee College of Applied Technology - Livingston

Title of Proposed Project:

Having a Viable, Available, Competent Workforce in Jackson County (HVAC)

Proposed Partners:

Tennessee College of Applied Technology Livingston

Jackson County School System

Jackson County High School

Upper Cumberland Local Workforce Development

Jackson County Chamber of Commerce

Jackson County Industrial Development Board

Highlands Economic Partnership—Workforce and Education--Pathways

Cookeville Heating and Cooling

Mayberry Heating and Cooling

Proposed Funding Requested: \$1,000,000

APPENDIX D

GIVE Grant Timeline Jackson County--HVAC

Month	Activity	Outcome Measure
	Begin Renovation of Facility/Begin Ordering	
	Equipment/Advertise for Instructor/Begin	
January-20	Approval Process for Off-campus location	Number of Instructor Applicants
	Renovation of Facility Continues/Continue to	Progress of Renovation/Percentage of
	Order and Receive Equipment/Advertise for	Equipment received/Number of
	Instructor/Continue approval process of off-	Instructor Applicants/Progress of
February-20	campus site/Highlands Boot Camp	Approval for site
		Progress of Renovation/Percentage of Equipment received/Number of
	Renovation of facility continues/Receiving of	Instructor Applicants/Progress of
	equipment/Recruit Dual Enrollment	Approval for site/Number of Student
	Students/Receiving Equipment/Interview	Interviewing with at the Highlands
March-20	Instructor/Highlands Interview Boot Camp	Boot Camp
		Number of Student Registering for the
April-20	Registration of Dual Enrollment Students	program
		Number of Work Ethic Distinguishes
	Graduation and Work Ethics Recognition	awarded and number of Employers
May-20	Event/Advisory Board Meeting	participating
,	•	Number of Teachers and Students
		participating and evaluation of the
June-20	Teacher Externship/Student Internship	program
		Number of Teachers and Students
		participating and evaluation of the
July-20	Teacher Externship/Student Internship	program
August-20	Begin Dual Enrollment Classes	Number of Students Enrolled
September-20	Tour of HVAC Facility	Number of Students attending tour
		Number teachers participating and
		Quality of program as measured by
October-20	Teacher Externship Day	satisfaction survey
		Minutes of meeting reflecting the
		Board's suggestions and evaluation of
November-20	Advisory Board Meeting	progress
December-20	Highlands 8th Career Fair	Number of 8th graders attending
	Enrollment of Dual Enrollment and Adult	
January-21	Students	Number of Students enrolled
		Number of students attending tour
February-21	Tour of HVAC Facility/Highlands Boot Camp	and the boot camp

		Number of Student Registering for the
	Recruitment of Dual Enrolled Students for Fall	program/Number of students
March-21	2021/Highlands Interview Boot Camp	attending Boot Camp
	Registration of Dual Enrollment Students for Fall	Number of Student Registering for the
April-21	2021	program
		Number of Work Ethic Distinguishes
	Graduation and Work Ethics Recognition	awarded and number of Employers
May-21	Event/Advisory Board Meeting	participating
		Number of Teachers and Students
	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	participating and evaluation of the
June-21	Teacher Externship/Student Internship	program
		Number of Teachers and Students
July 21	Tazahar Externahin/Student Internahin	participating and evaluation of the program
July-21	Teacher Externship/Student Internship Enrollment of Dual Enrollment and Adult	Number of Dual Enrolled and Adult
August-21	Students	students in the program
August-ZI	Students	3tddelits in the program
September-21	Tour of HVAC Facility	Number of Students attending tour
		Number teachers participating and
		Quality of program as measured by
October-21	Teacher Externship Day	satisfaction survey
		Minutes of meeting reflecting the
		Board's suggestions and evaluation of
November-21	Advisory Board Meeting	progress
		Number of Adult Graduates and the
	TCAT Adult Graduation/Highlands 8th Grade	number of 8th grades attending the
December-21	Career Fair	career fair
	Enrollment of Dual Enrollment and Adult	Number of students enrolled both
January-22	Students	dual enrollment and adults
- 1 22	Town of the AC Fortility / 18 to bloom to Book Company	Number of students attending tour
February-22	Tour of HVAC Facility/Highlands Boot Camp	and the boot camp
	Description of Dual Envalled Students for Fall	Number of Student Registering for the program/Number of students
March-22	Recruitment of Dual Enrolled Students for Fall 2022/Highlands Boot Camp	attending Boot Camp
IVIdICII-22	Registration of Dual Enrollment Students for Fall	Number of Student Registering for the
April-22	of 2022	program
Apin-22	VI LULL	F. ~ 0. ~
		Number of Work Ethic Distinguishes
	Graduation and Work Ethics Recognition	awarded and number of Employers
May-22	Event/Advisory Board Meeting	participating/
······································		Number of Teachers and Students
		participating and evaluation of the
June-22	Teacher Externship/Student Internship	program

POSITION TITLE: Work-Based Learning Coach

JOB GOALS: To implement and direct the career and technology work based learning program.

SKILLS:

- Strong organizational skills;
- Ability to coordinate, design, structure, and integrate school-based and work-based instruction;
- Ability to develop, supervise, and complete projects;
- Strong computer skills,
- Strong interpersonal and communication skills with the ability and/or experience to network
- Presentation skills for large and small group trainings and workshops.

FUNCTIONS:

- Serve as a liaison between the school districts, TCAT Livingston, high schools, and local employers
- Coordinate connecting activities between school-based and work-based learning
- Coordinate the development of school-based and work-based competencies

ESSENTIAL JOB RESPONSIBILITIES:

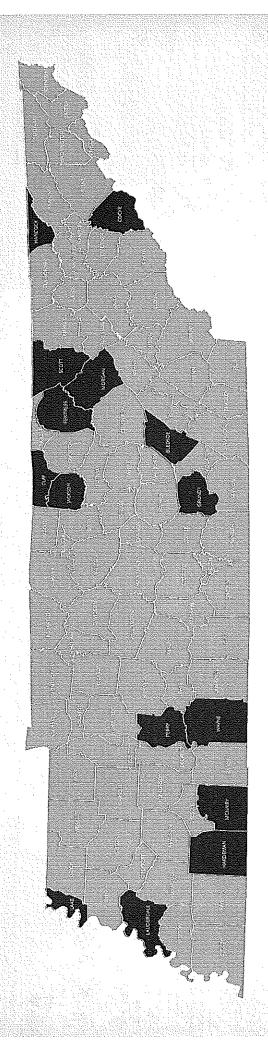
- Assist the project director and postsecondary representatives in defining needs, developing plans, establishing goals, and formulating policies and procedures for program development.
- Recruit new businesses and organizations to provide quality work-based and school based learning opportunities for students; serve as the liaison between the schools and business and industry.
- 3. Maintain lists of businesses/industries willing to participate in work-based learning.
- 4. Prepare and submit required reports and other documents.
- 5. Assist in screening, interviewing, and selecting qualified students for work-based learning experiences.
- 6. Coordinate Internships, Job Shadowing, Service Learning, and other Work-Based Learning programs offered through the TCAT Livingston that relate to the program.
- 7. Contact business and industry in regards to their employment and training needs and to encourage partnerships with our center.
- 8. Assist with curriculum development and integration of technical and academic education.

- 9. Assist with career development of students through career clusters, extended learning opportunities, and employability skills.
- 10. Maintain a current Advisory Board listing (updated yearly) which includes contact information. Supervise and coordinate Advisory Board meetings. Keep on file records of such meetings.
- 11. Work with instructors to provide instruction in: employability skills, Resume writing and interviewing skills.
- 12. Other duties as assigned by the director.

QUALIFICATIONS:

- 1 Bachelor's Degree
- 2. Three years of work experience required (Preferred experience in business or education.)
- 3. Ability to work with minimum supervision.
- 4. Knowledge of work-based learning initiatives to include career counseling.
- 5. Demonstrated supervisory skills.
- 6. Alternatives to the above qualifications as the Board may find appropriate and acceptable.

DISTRESSED COUNTIES MAP



DISTRESSED COUNTIES

Bledsoe Clay Cocke Fentress Grundy Hancock Hardeman Jackson

Lake Lauderdale McNairy Morgan Perry Scott Wayne



Appendix

HVAC Equipment & Installation

Mechanical Installation Detail

- Installation of One (1) Build-Up Air Handler
- Installation of One (1) Water Source Heat Pump (Water to Water Heat Exchanger)
- Installation of Two (2) Inline Water Pumps
- Installation of Two (2) Water Holding Tanks
- Installation of Six (6) Fan Powered V.A.V. Boxes
- Installation of Two (2) V.A.V. Boxes
- Installation of One (1) Fan Coll Unit
- Furnish and Install One (1) Reduce Pressure Backflow Preventer
- Furnish and Install One (1) Air Separator for the Heating Water System
- Provide Forklift for Installation of A.H.U., Water Tanke and W.S.H.P.
- Furnish and Install Chilled Water Pipe from Tanks, W.S.H.P. and A.H.U.
- Furnish and Install Hot Water Pipe from Tanks, W.S.H.P., F.C.U. and A.H.U.
- Furnish and Install Domestic Water Piping from Existing Main thru R.P.B.P. to supply system
- Furnish and Install Condensate Piping for A.H.U. to existing Floor Drain
- Furnish and Install Fabricated Supply Ductwork Main Truck and Spiral Run-Outs from A.H.U. to V.A.V. Boxes and F.C.U.
- Furnish and Install Fabricated Return Ductwork Main from A.H.U. into space
- · Furnish and Install Fabricated Outside Air Ductwork from Louver to A.H.U.
- Furnish and Install Outside Air Louver
- Furnish and install Fiberglass Insulation on all Chilled Water and Heating Water Pipe
- Furnish and Install Vibration Isolation for F.P.U., V.A.V, and A.H.U.

Electrical Installation

- Furnish labor and materials for electrical wiring as per site visit equipment submittal information and controls scope of work provided.
- · All control wiring and devices will be supplied and installed by Trane.

Proposal Notes/ Clarifications

- All work to be performed during normal business hours (8am to 5pm, M-F, non-holidays)
- Proposal does not include "Premlum Time" or Price Contingency therefor
- Equipment Order Release and Services rendered are dependent on receipt of PO/Subcontract and credit approval
- Trane will not perform any work if working conditions could endanger or put at risk the safety of our employees or subcontractors
- Asbestos or hazardous material abatement removal shall be performed by customer

Miscellaneous mechanical services not included (unless otherwise noted)

Relocation or existing mechanical and laboratory materials in the area of the install are not included

Provided Mechanical Equipment

ltem	Tag(s)	Qty	Description	Model Number
A1	EXW 1	1	5 ton Water to water WSHP (EXW)	EXWE06031
B1	CSAA 1	1	Performance Climate Changer (CSAA)	CSAA004UA
C1	FPS 1, FPS 2, FPS 3, FPS 4	4	VAV Fan Powered Terminal Units (FP)	VSWF0500P**DD73AD110-L-000000000-003
C2	FPP 1 FFP 2.	2	VAV Fan Powered Terminal Units (FP)	VPWF0500P**DD73AD110-L-00000000003
D1	SO 1, SO 2	2	Variable Air Volume Single Duct	VCWF05
E1	No Tag	8	3 Ton Unitary Split Systems	
F1	FORCELO 1	1	Unit Cabinet Heater (Force-Flo)	FFCB0601KF0A00AG2A000001M0EJ2

Building Controls Equipment & Installation

BAS will consist of the following:

- This system will be controlled by 4 web-accessible Trane Tracer SC building automation systems that will communicate to unit controllers using the BACnet/MSTP protocol.
- 3D Floor Plans and Unit Graphics.
- Programming and System Commissioning.
- Eight (8) hours of owner training by a factory certified Trane Controls technician are included with this proposal.

Unit Controllers will consist of the following:

- VAV boxes (8 total), one air handler, and one fan coil unit will include factory mounted unit
 controllers that will be field wired using a BACnet/MSTP communications link back to the Tracer
 SC
- The Water to Water Water Source Heat Pump will include a field mounted controller that will be field wired using a BACnet/MSTP communications link back to the Tracer SC.
- All pumps and valve actuators will be wired back to the nearest unit controller and be controllable in the Tracer SC.
- All unit controllers will include relevant points to be scheduled, controlled, and alarmed through the Tracer SC.

Notes\Clarifications:

- TCAT must provide 4 Ethernet/IP drops in the classroom in order to make the BAS webaccessible.
- Wiring will be plenum rated wire, neatly fied off in ceiling spaces, and contained in EMT in open spaces
- Installation of Controls and wiring will be performed during regular business hours.
- Includes One-Year Parts and Labor Warranty on all Control Components

Exclusions:

- Smoke Damper or Combination Fire/Smoke Dampers and Actuators
- Fire, Security, and Lighting Controls and Integration
- · Motor Starters, Disconnects, and/or H-O-A Switches
- Systems Test and Balance
- All Power Wiring (50 Voits or Greater), wiring, terminations and related required for Trane provided controls.
- · All Fire/Smoke Damper/Actuators are provided, installed, powered, controlled & wired by others
- Any Items not specifically noted in the above proposal.

QUOTATION

TO:

TCAT Livingston

FROM:

Technical Training Aids

DATE:

SUBJECT: Amatrol ACDC 9/5/2018



DESCRIPTION QTY PRICE TOTAL PART#

T7082A

Air Conditioning / Heat Pump Troubleshooting Learning

System

For computer requirements, see www.amatrol.com/support.

Includes: Air conditioning and heat pump system with: (1) Mobile Workstation; (1) Fault Troubleshooting System; (1) User's Guide; (1) USB cable and interface; (1) Compressor; (1) Pressure Control System, Refrigerant R134a; (1) Refrigeration Circuit; (1) Instrumentation Set; (1) Temperature Control System; (1) Blower Control System; (1) Valve Wrench; (1) B11572 Student Learning Activity Packet; (1) C11572 Portfolio/Assessment; (1) D11572 Installation Guide; (1) H11572 Student Reference

Guide; (1) G11572 Reference Guide.

omiero) T7083

Environmental Applications Learning System Adds to T7082 and T7082A. Requires 82-610 Mobile Technology Workstation (workstation must be 30" in heigh with adjustable height to connect to the T7082.)

Includes: (1) Environmental Unit; (1) Air Distribution System; (1) Humidity Monitoring System; (1) 11605 Stude Learning Activity Packet; (1) 11615 Teacher's Assessmer Guide; (1) 11625 Installation Guide; (1) H11605 Student Reference Guide.

Table needed for T7083

82-610W

Mobile Technology Workstation, Type 1 - 6 Foot Includes: (1) Welded Steel Frame; (1) White Laminated Work Surface; (1) Dimensions: 30H x 30W x 72L inches; (4) Casters.

Notes

Quote is good for 45 days

All computer are to owner provided Hand tools are required, can be owner provided Computers are needed 90-120 day delivery Shipping cost are estimated, actual will be invoiced

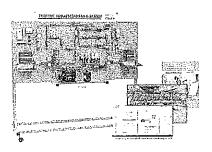
'echnical Training Aids

Technical Training Aids

Andrew Rittmeier - Sales Representative Phone:(859) 757-1455 / Fax:(859) 757-0417 P.O. Box 17537 Covington, KY 41017

Birmingham home office: 800-851-3987

\$37,496.00 2 \$18,748.00



2 \$19,388.00 \$9,694.00



2 \$912.00 \$1,824.00



Shipping \$1,200.00

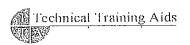
TOTAL \$59,908.00

Budgetary Quote

TO: TCAT Livingston
FROM: Technical Training Aids
SUBJECT: Amatrol NEW HVAC systems
DATE: 8/21/2019



PART#	DESCRIPTION	QTY	PRICE	TOTAL
T7801	Refrigerant Recovery and Charging Learning System for R- 134a	4	\$7,025.00	\$28,100.00
	Requires learning system that uses refrigerant: T7082,			
	T7100, or T7130. Also requires customer-supplied refrigerant and a PC, see www.amatrol.com/support for			
	PC requirements.			
	Includes (1) Mobile Workstation; (1) Recovery Tank; (1)			
	Recovery Machine; (1) Charging Hose Set; (1) Temperature Probe; (2) Valve core Removal Tools; (1) Manifold Gauge	•		
	Set; (1) Submersible Cooler, (1) Electronic Scale, (1) Filter			
	Dryer, (1) M19162 Student Curriculum - PC-Based			
	Multimedia; (1) C19162 Instructor's Guide, (1) K19162 Instructor's Resource Print CO, (1) D19162 Installation			
	Guide, and (1) H19162 Student Reference.			
T7802	Refrigerant Recovery and Charging Learning System for R-410a	4	\$7,025.00	\$28,100.00
	Requires learning system that uses refrigerant: T7082,			
	T7100, or T7130. Also requires customer-supplied			
	refrigerant and a PC, see www.amatrol.com/support for PC requirements.			
	includes (1) Mobile Workstation; (1) Recovery Tank; (1)			
	Recovery Machine; (1) Charging Hose Set; (1) Temperature	?		
	Probe; (2) Valve Core Removal Tools; (1) Manifold Gauge Set; (1) Submersible Cooler, (1) Electronic Scale, (1) Filter			
	Dryer, (1) Liquid Vaporizer, (1) Student Curriculum - PC-			
	Based Multimedia; (1) Instructor's Guide, (1) Instructor's			
	Resource Print CD, (1) Installation Guide, and (1) Student Reference.			
T7100	Residential Heat Pump Troubleshooting Learning System	4	\$21,555.00	\$86,220.00
	Requires 220V/60Hz/1ph electrical and PC, see www.amatrol.com/support for PC requirements.			
	includes (1) Mobile Workstation; (1) Heat Pump			
	Condenser; (1) Heat Pump Air Handler with Evaporator, (1)		
	Thermostat; (1) Disconnect Fuse Box; (1) Condensate Pump; (1) Ducting System; (1) Computer-Based Fault			
	Insertion System; (1) M19173 Student Curriculum - PC-			
	Based Multimedia; (1) C19173 Instructor's Guide; (1)			
	K19173 Instructor's Resource Print CD; (1) D19173 Installation Guide; (1) H9173 Student Reference.			
			440 740 00	÷***0 0.40 00
T7130	Residential Mini-Split Heat Pump Learning System Requires 220V/60Hz/1ph electrical and PC, see	4	\$19,760.00	\$79,040.00
	www.amatrol.com/support for PC requirements.			
	Includes (1) Mobile Workstation; (1) Heat Pump			
	Condenser; (1) Evaporator; (1) Thermostat; (1) Condensat	e		
	Pump; (1) Computer-Based Fault Insertion System; (1) M19174 Student Curriculum - PC-Based Multimedia; (1)			
	C19174 Instructor's Guide; (1) K19174 Instructor's			
	Resource Print CD; (1) D19174 Installation Guide; (1) H9173 Student Reference.			
Notes: Budgetan	y pricing only		TOTAL	\$221,460.00
Computer	s are needed		,	
	s are to be owner provided good for 60 days			
Shipping	charges will be added based on final order			
	ectrical requirements			



GIVE Memorandum of Understanding

Memorandum of Understanding

Between
Tennessee College of Applied Technology Livingston
Jackson County Schools
and
Upper Cumberland Local Workforce Development

This Memorandum of Understanding (MOU) sets for the terms and understanding between Tennessee College of Applied Technology Livingston, Jackson County Schools, and Upper Cumberland Local Workforce Development to establish the terms and conditions under which the Governor's Investment in Vocational Education (GIVE) grant program will function.

Purpose

This MOU will provide an understanding of the roles and responsibilities of each partner and how their efforts will develop long term partnerships.

The partnership outlined in this memorandum will support efforts to develop an employer-driven career path that can be obtained through higher education programs.

Reporting

The TCAT Livingston Program Director and GIVE advisory board will evaluate effectiveness and adherence to the agreement. The advisory board will meet twice per year, or more often if needed, to relay progress or issues related to program implementation. During this time, TCAT Livingston, Jackson County School System, and our industry and community partners will have the opportunity to share data necessary to evaluate the success of the program. Program requirements will be continuously adjusted accordingly.

Duration

This MOU shall become effective beginning with the execution of the GIVE grant contract and will remain in effect for a period of no less than 30 months. The MOU may be modified or extended by mutual consent of the partners. In the absence of mutual agreement by the authorized officials from TCAT Livingston, the Jackson County School system, and the Upper Cumberland Local Workforce Development an individual partner can terminate their participation by giving a written notice of intent to terminate.

Duties of each partner

This section will describe the responsibilities as agreed upon for each partner.

Responsibilities of TCAT Livingston:

- Serve as the lead entity of the grant:
- · Coordinate all grant activities;

- Manage partner participation;
- · Complete any reports necessary to administer the grant;
- Monitor and audit partnership contracts;
- Other responsibilities to support grant activity.

Responsibilities of Upper Cumberland Local Workforce Development:

- Create workforce partnerships with local industries requiring high demand skills;
- · Match current job openings with program skills development;
- Communicate with partners on program development and progress;
- Provide students with career advancement opportunities training;
- Documentation of student and workforce relationship successes.

Responsibilities of Jackson County School System and Jackson County High School:

- · Recruit and refer students to the program;
- · Communicate with partners on program development and progress;
- · Develop industry partnerships within the community;
- Provide appropriate classroom space and instructional equipment;
- · Supply instructional facility.

Contact Information

Tennessee College of Applied Technology Livingston 740 Hi Tech Drive Livingston, TN 38570 (931) 823-5525

Upper Cumberland Local Workforce Development 580 South Jefferson Avenue Cookeville, TN 38501 (931) 520-6020

The parties to this MOU through their authorized representatives confirm their acceptance on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU.

Signature: Onthe	Date:	9-3-19
Program Director		
TCAT Livingston		
Signature: Lecke Velo Representative Upper Cumberland Local Workforce Development	Date:	7/5/19
Opper Cumocrand Local Workforce Development		
Signature: Kist Brown	Date:	2/5/19
Representative		, , ,
Jackson County Schools		

GIVE Memorandum of Understanding

Memorandum of Understanding

Between

Tennessee College of Applied Technology Livingston
Jackson County Schools
and
Jackson County Chamber of Commerce

This Memorandum of Understanding (MOU) sets for the terms and understanding between Tennessee College of Applied Technology Livingston, Jackson County Schools, and Jackson County Chamber of Commerce to establish the terms and conditions under which the Governor's Investment in Vocational Education (GIVE) grant program will function.

Purpose

This MOU will provide an understanding of the roles and responsibilities of each partner and how their efforts will develop long term partnerships.

The partnership outlined in this memorandum will support efforts to develop an employer-driven career path that can be obtained through higher education programs.

Reporting

The TCAT Livingston Program Director and GIVE advisory board will evaluate effectiveness and adherence to the agreement. The advisory board will meet twice per year, or more often if needed, to relay progress or issues related to program implementation. During this time, TCAT Livingston, Jackson County School System, and our industry and community partners will have the opportunity to share data necessary to evaluate the success of the program. Program requirements will be continuously adjusted accordingly.

Duration

This MOU shall become effective beginning with the execution of the GIVE grant contract and will remain in effect for a period of no less than 30 months. The MOU may be modified or extended by mutual consent of the partners. In the absence of mutual agreement by the authorized officials from TCAT Livingston, the Jackson County School system, and the Jackson County Chamber of Commerce an individual partner can terminate their participation by giving a written notice of intent to terminate.

Duties of each partner

This section will describe the responsibilities as agreed upon for each partner.

Responsibilities of TCAT Livingston:

Serve as the lead entity of the grant;

- Coordinate all grant activities;
- Manage partner participation;
- Complete any reports necessary to administer the grant;
- Monitor and audit partnership contracts;
- Other responsibilities to support grant activity.

Responsibilities of Jackson County Chamber of Commerce:

- Create workforce partnerships with local industries requiring high demand skills;
- Match current job openings with program skills development;
- · Communicate with partners on program development and progress;
- Provide students with career advancement opportunities training;
- Documentation of student and workforce relationship successes.

Responsibilities of Jackson County School System and Jackson County High School:

- Recruit and refer students to the program;
- Communicate with partners on program development and progress;
- Develop industry partnerships within the community;
- Provide appropriate classroom space and instructional equipment;
- Supply instructional facility.

Contact Information

Tennessee College of Applied Technology Livingston 740 Hi Tech Drive Livingston, TN 38570 (931) 823-5525

Jackson County Chamber of Commerce 402 E Hull Avenue Gainesboro, TN 38562 (931) 268-0971

The parties to this MOU through their authorized representatives confirm their acceptance on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU.

Signature:	Date:	9-3-19
Program Director		
TCAT Livingston		
Signature:	ate:	9-3-19
Representative		
Jackson County Chamber of Commerce		
Signature: Aust & Brown D	ate:	9-2-19
Representative /		
Jackson County Schools		

GIVE Memorandum of Understanding

Memorandum of Understanding

Between
Tennessee College of Applied Technology Livingston
Jackson County Schools
and
Jackson County Industrial Development Board

This Memorandum of Understanding (MOU) sets for the terms and understanding between Tennessee College of Applied Technology Livingston, Jackson County Schools, and Jackson County Industrial Development Board to establish the terms and conditions under which the Governor's Investment in Vocational Education (GIVE) grant program will function.

Purpose

This MOU will provide an understanding of the roles and responsibilities of each partner and how their efforts will develop long term partnerships.

The partnership outlined in this memorandum will support efforts to develop an employer-driven career path that can be obtained through higher education programs.

Reporting

The TCAT Livingston Program Director and GIVE advisory board will evaluate effectiveness and adherence to the agreement. The advisory board will meet twice per year, or more often if needed, to relay progress or issues related to program implementation. During this time, TCAT Livingston, Jackson County School System, and our industry and community partners will have the opportunity to share data necessary to evaluate the success of the program. Program requirements will be continuously adjusted accordingly.

Duration

This MOU shall become effective beginning with the execution of the GIVE grant contract and will remain in effect for a period of no less than 30 months. The MOU may be modified or extended by mutual consent of the partners. In the absence of mutual agreement by the authorized officials from TCAT Livingston, the Jackson County School system, and the Jackson County Industrial Development Board an individual partner can terminate their participation by giving a written notice of intent to terminate.

Duties of each partner

This section will describe the responsibilities as agreed upon for each partner.

Responsibilities of TCAT Livingston:

- Serve as the lead entity of the grant;
- Coordinate all grant activities;

- Manage partner participation;
- · Complete any reports necessary to administer the grant;
- Monitor and audit partnership contracts;
- Other responsibilities to support grant activity.

Responsibilities of Jackson County Industrial Development Board:

- Create workforce partnerships with local industries requiring high demand skills;
- Match current job openings with program skills development;
- Communicate with partners on program development and progress;
- Provide students with career advancement opportunities training;
- Documentation of student and workforce relationship successes.

Responsibilities of Jackson County School System and Jackson County High School:

- · Recruit and refer students to the program;
- Communicate with partners on program development and progress:
- Develop industry partnerships within the community;
- Provide appropriate classroom space and instructional equipment;
- Supply instructional facility.

Contact Information

Tennessee College of Applied Technology Livingston 740 Hi Tech Drive Livingston, TN 38570 (931) 823-5525

Jackson County Industrial Development Board Gainesboro, TN 38562 (931) 268-9711

The parties to this MOU through their authorized representatives confirm their acceptance on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU.

Signature: Da	ate	9-5-19
Program Director		, ,
TCAT Livingston		
Signature: Da Representative Da	ite:	9-4-19
Jackson County Industrial Development Board		
\mathcal{L}	ite:	9-2-19
Jackson County Schools		

GIVE Memorandum of Understanding

Memorandum of Understanding

Between
Tennessee College of Applied Technology Livingston
Jackson County Schools
and

Highlands Economic Partnership - Workforce and Education - Pathways

This Memorandum of Understanding (MOU) sets for the terms and understanding between Tennessee College of Applied Technology Livingston, Jackson County Schools, and Highlands Economic Partnership - Workforce and Education - Pathways to establish the terms and conditions under which the Governor's Investment in Vocational Education (GIVE) grant program will function.

Purpose

This MOU will provide an understanding of the roles and responsibilities of each partner and how their efforts will develop long term partnerships.

The partnership outlined in this memorandum will support efforts to develop an employer-driven career path that can be obtained through higher education programs.

Reporting

The TCAT Livingston Program Director and GIVE advisory board will evaluate effectiveness and adherence to the agreement. The advisory board will meet twice per year, or more often if needed, to relay progress or issues related to program implementation. During this time, TCAT Livingston, Jackson County School System, and our industry and community partners will have the opportunity to share data necessary to evaluate the success of the program. Program requirements will be continuously adjusted accordingly.

Duration

This MOU shall become effective beginning with the execution of the GIVE grant contract and will remain in effect for a period of no less than 30 months. The MOU may be modified or extended by mutual consent of the partners. In the absence of mutual agreement by the authorized officials from TCAT Livingston, the Jackson County School system, and the Highlands Economic Partnership - Workforce and Education — Pathways an individual partner can terminate their participation by giving a written notice of intent to terminate

Duties of each partner

This section will describe the responsibilities as agreed upon for each partner.

Responsibilities of TCAT Livingston:

Serve as the lead entity of the grant;

- Coordinate all grant activities;
- Manage partner participation;
- · Complete any reports necessary to administer the grant;
- Monitor and audit partnership contracts;
- Other responsibilities to support grant activity.

Responsibilities of Highlands Economic Partnership - Workforce and Education -- Pathways:

- · Create workforce partnerships with local industries requiring high demand skills;
- Match current job openings with program skills development;
- Communicate with partners on program development and progress;
- Provide students with career advancement opportunities training;
- Documentation of student and workforce relationship successes.

Responsibilities of Jackson County School System and Jackson County High School:

- Recruit and refer students to the program;
- Communicate with partners on program development and progress;
- Develop industry partnerships within the community;
- Provide appropriate classroom space and instructional equipment;
- Supply instructional facility.

Contact Information

Tennessee College of Applied Technology Livingston 740 Hi Tech Drive Livingston, TN 38570 (931) 823-5525

Highlands Economic Partnership - Workforce and Education -- Pathways 1 West First Street Cookeville, TN 38501 (931) 526-2211

The parties to this MOU through their authorized representatives confirm their acceptance on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU.

Signature:	Date:	9-5-19
Program Director	raic,	
TCAT Livingston		
Signature: Filian Hailans I Representative Highlands Economic Partnership - Workforce and Education Pathways	Date:	Sept. 4, 2019
Representative	Date:	9-5-2019
Jackson County Schools		

GIVE Memorandum of Understanding

Memorandum of Understanding

Between

Tennessee College of Applied Technology Livingston

and

Jackson County School System

Jackson County High School

This Memorandum of Understanding (MOU) sets for the terms and understanding between Tennessee College of Applied Technology Livingston, the Jackson County School System and Jackson County High School to establish the terms and conditions under which the Governor's Investment in Vocational Education (GIVE) grant program will function.

Purpose

This MOU will provide an understanding of the roles and responsibilities of each partner and how their efforts will develop long term partnerships.

The partnership outlined in this memorandum will support efforts to develop an employer-driven career path that can be obtained through higher education programs. This partnership provides high school students the opportunity to earn both TCAT (clock hours) and high school graduation credits simultaneously upon successful completion of qualified course(s).

The qualified program/courses are: Having a Viable, Available, Competent Workforce in Jackson County (HVAC)

Instructors for the dual enrollment classes shall be subject to the approval of all partners and will adhere to the College policies regarding academic standards and documentation of attendance and grades.

Reporting

The lead agency, TCAT Livingston, Program Director and GIVE advisory board will evaluate effectiveness and adherence to the agreement. The advisory board will meet twice per year, or more often if needed, to relay progress or issues related to program implementation.

In accordance with the guidelines set forth by the Tennessee Board of Regents (TBR), the Tennessee Higher Education Commission (THEC), and the procedures established by TCAT Livingston reserves the right to schedule an observation of the class by the Program Director at any time to ensure that college-level outcomes are met.

Duration

This MOU shall become effective beginning with the execution of the GIVE grant contract and will remain in effect for a period of no less than 30 months. The MOU may be modified or extended by mutual consent of the partners. In the absence of mutual agreement by the authorized officials from TCAT Livingston, Jackson County School System, and Jackson County High School an individual partner can terminate their participation by giving a written notice of intent to terminate.

Duties of each partner

This section will describe the responsibilities as agreed upon for each partner.

Responsibilities of TCAT Livingston:

- Serve as the lead entity of the grant;
- · Coordinate all grant activities;
- Provide program instructor;
- Manage partner participation;
- · Complete any reports necessary to administer the grant;
- Monitor and audit partnership contracts;
- Other responsibilities to support grant activity.

Responsibilities of Jackson County School System and Jackson County High School:

- · Recruit and refer students to the program;
- Communicate with partners on program development and progress;
- Develop industry partnerships within the community;
- Provide appropriate classroom space and instructional equipment;
- Supply instructional facility.

Contact Information

Tennessee College of Applied Technology - Livingston Cynthia Mann Program Director 740 Hi Tech Drive Livingston, TN 38570 (931) 823-5525

Jackson County School System Kristy Brown Director of Schools 711 School Drive Gainesboro, TN 38583 (931) 268-0119 Jackson County High School Jason Hardy Principal 711 School Drive Gainesboro, TN 38583 (931) 268-0119

The parties to this MOU through their authorized representatives confirm their acceptance on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU.

Signature: ant M	Date:	9-3-19
Program Director		
TCAT Livingston		
Signature: Kith Stories Director of Schools Jackson County School System	Date:	9-2-19
Signature: A Lab Principal Jackson County High School	Date:	9-2-19

GIVE Memorandum of Understanding

Memorandum of Understanding

Between
Tennessee College of Applied Technology Livingston
And
Mayberry Heating and Cooling

This Memorandum of Understanding (MOU) sets for the terms and understanding between Tennessee College of Applied Technology Livingston and Mayberry Heating and Cooling to establish the terms and conditions under which the Governor's Investment in Vocational Education (GIVE) grant program will function.

Purpose

This MOU will provide an understanding of the roles and responsibilities of each partner and how their efforts will develop long term partnerships.

The partnership outlined in this memorandum will support efforts to develop an employer-driven career path that can be obtained through higher education programs.

Reporting

The TCAT Livingston Program Director and GIVE advisory board will evaluate effectiveness and adherence to the agreement. The advisory board will meet twice per year, or more often if needed, to relay progress or issues related to program implementation.

Duration

This MOU shall become effective beginning with the execution of the GIVE grant contract and will remain in effect for a period of no less than 30 months. The MOU may be modified or extended by mutual consent of the partners. In the absence of mutual agreement by the authorized officials from TCAT Livingston and the Jackson County School System, an individual partner can terminate their participation by giving a written notice of intent to terminate.

Duties of each partner

This section will describe the responsibilities as agreed upon for each partner.

Responsibilities of TCAT Livingston:

- Serve as the lead entity of the grant;
- Coordinate all grant activities;
- Manage partner participation;
- Complete any reports necessary to administer the grant;
- Monitor and audit partnership contracts;

• Other responsibilities to support grant activity.

Responsibilities of Mayberry Heating and Cooling:

- Provide meaningful and sustainable work experiences to students through internships, coops, registered apprenticeships, and clinicals;
- Communicate with partners on program development and progress:
- · Provided direct reinforcement of academic, technical, and employability skills;
- Assessment of student learning that is aligned with expectations;
- Offer students summer internship opportunities;
- · Provide teacher and guidance counselors externships and shadowing opportunities;
- Documentation of student learning.

Responsibilities of Jackson County School System and Jackson County High School:

- Recruit and refer students to the program;
- · Communicate with partners on program development and progress;
- Develop industry partnerships within the community;
- Provide appropriate classroom space and instructional equipment;
- Supply instructional facility.

Contact Information

Tennessee College of Applied Technology Livingston 740 Hi Tech Drive Livingston, TN 38570 (931) 823-5525

Mayberry Heating and Cooling 1153 Zion Road #9208 Cookeville, TN 38501 (931) 858-7338

The parties to this MOU through their authorized representatives confirm their acceptance on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU.

Signature: D	ate:	9-3-19
Program Director		
TCAT Livingston		
Signature: Juny & Mohry D Representative	ate:	9/3/19
Mayberry Heating and Cooling		
Signature: Krizy & Brown D	ate:	9-2-19
Representative	ľ	
Jackson County Schools	Ì	

GIVE Memorandum of Understanding

Memorandum of Understanding

Between
Tennessee College of Applied Technology Livingston
and
Carwile Mechanical Contractors

This Memorandum of Understanding (MOU) sets for the terms and understanding between Tennessee College of Applied Technology Livingston and Carwile Mechanical Contractors to establish the terms and conditions under which the Governor's Investment in Vocational Education (GIVE) grant program will function.

Purpose

This MOU will provide an understanding of the roles and responsibilities of each partner and how their efforts will develop long term partnerships.

The partnership outlined in this memorandum will support efforts to develop an employer-driven career path that can be obtained through higher education programs.

Reporting

The TCAT Livingston Program Director and GIVE advisory board will evaluate effectiveness and adherence to the agreement. The advisory board will meet twice per year, or more often if needed, to relay progress or issues related to program implementation.

Duration

This MOU shall become effective beginning with the execution of the GIVE grant contract and will remain in effect for a period of no less than 30 months. The MOU may be modified or extended by mutual consent of the partners. In the absence of mutual agreement by the authorized officials from TCAT Livingston and the Jackson County School System, an individual partner can terminate their participation by giving a written notice of intent to terminate.

Duties of each partner

This section will describe the responsibilities as agreed upon for each partner.

Responsibilities of TCAT Livingston:

- Serve as the lead entity of the grant;
- Coordinate all grant activities;
- Manage partner participation;
- Complete any reports necessary to administer the grant;
- Monitor and audit partnership contracts;

· Other responsibilities to support grant activity.

Responsibilities of Carwile Mechanical Contractors:

- Provide meaningful and sustainable work experiences to students through internships, coops, registered apprenticeships, and clinicals;
- Communicate with partners on program development and progress;
- Provided direct reinforcement of academic, technical, and employability skills:
- Assessment of student learning that is aligned with expectations;
- Offer students summer internship opportunities;
- Provide teacher and guidance counselors externships and shadowing opportunities;
- Documentation of student learning.

Responsibilities of Jackson County School System and Jackson County High School:

- Recruit and refer students to the program;
- Communicate with partners on program development and progress;
- Develop industry partnerships within the community;
- Provide appropriate classroom space and instructional equipment;
- Supply instructional facility.

Contact Information

Tennessee College of Applied Technology Livingston 740 Hi Tech Drive Livingston, TN 38570 (931) 823-5525

Carwile Mechanical Contractors 433 E 15th Street Cookeville, TN 38501 (931) 526-6151

The parties to this MOU through their authorized representatives confirm their acceptance on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU.

Signature: Upt Men	Date:	9-3-19
Program Director		
TCAT Livingston		
Signature:	Date: <u>(</u>	903/19
Representative		
Carwile Mechanical Contractors		
Signature: Austr Grown Representative	Date:	7-5-19
Jackson County Schools		
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GIVE Memorandum of Understanding

Memorandum of Understanding

Between
Tennessee College of Applied Technology Livingston
and
Cookeville Heating and Cooling 5th
OHC Mechanical Contractors, Inc.

This Memorandum of Understanding (MOU) sets for the terms and understanding between Tennessee College of Applied Technology Livingston and Cookeville Heating and Cooling to establish the terms and conditions under which the Governor's Investment in Vocational Education (GIVE) grant program will function.

Purpose

This MOU will provide an understanding of the roles and responsibilities of each partner and how their efforts will develop long term partnerships.

The partnership outlined in this memorandum will support efforts to develop an employer-driven career path that can be obtained through higher education programs.

Reporting

The TCAT Livingston Program Director and GIVE advisory board will evaluate effectiveness and adherence to the agreement. The advisory board will meet twice per year, or needed, to relay progress or issues related to program implementation.

Duration

This MOU shall become effective beginning with the execution of the GIVE grant contract and will remain in effect for a period of no less than 30 months. The MOU may be modified or extended by mutual consent of the partners. In the absence of mutual agreement by the authorized officials from TCAT Livingston and the Jackson County School System, an individual partner can terminate their participation by giving a written notice of intent to terminate.

Duties of each partner

This section will describe the responsibilities as agreed upon for each partner.

Responsibilities of TCAT Livingston;

- · Serve as the lead entity of the grant;
- · Coordinate all grant activities;
- Manage partner participation;
- · Complete any reports necessary to administer the grant;
- Monitor and audit partnership contracts;

• Other responsibilities to support grant activity.

Responsibilities of Cookeville Heating and Cooling:

- Provide meaningful and sustainable work experiences to students through internships, coops, registered apprenticeships, and clinicals;
- · Communicate with partners on program development and progress;
- · Provided direct reinforcement of academic, technical, and employability skills;
- Assessment of student learning that is aligned with expectations;
- Offer students summer internship opportunities;
- · Provide teacher and guidance counselors externships and shadowing opportunities;
- Documentation of student learning.

Responsibilities of Jackson County School System and Jackson County High School:

- Recruit and refer students to the program;
- Communicate with partners on program development and progress;
- Develop industry partnerships within the community;
- Provide appropriate classroom space and instructional equipment;
- Supply instructional facility.

Contact Information

Tennessee College of Applied Technology Livingston 740 Hi Tech Drive Livingston, TN 38570 (931) 823-5525

Sookeville Heating and Cooling CHC Muchanical Contractors, Inc. 347 E Stevens Street
Cookeville, TN 38501
(931) 528-5514

The parties to this MOU through their authorized representatives confirm their acceptance on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU.

Signature:	Date:	4-19
Program Director /		
TCAT Livingston		
Signature: Drum Hamilton	Date:	9-3-19
Representative October Checkerille Heating and Cooling Offer Usehanical Contractors, Inc.		
Signature: Kitz L Brown Representative Jackson County Schools	Date: _	9-5-19
X.		